

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

ARTEC EUROPE S.À.R.L.,

Plaintiff,

v.

SHENZHEN CREALITY 3D
TECHNOLOGY CO., LTD. and
SHENZHEN JIMUYIDA TECHNOLOGY
CO., LTD.,

Defendants.

Case No. 1:22-1676 (OEM)(VMS)

**DECLARATION OF ALEXANDER
OSIPOV IN SUPPORT OF
PLAINTIFF ARTEC EUROPE
S.À.R.L.'S NOTICE OF MOTION
AND MEMORANDUM OF LAW IN
SUPPORT OF MOTION FOR
PROTECTIVE ORDER**

[Filed concurrently with Notice of Motion and Memorandum of Law; Declaration of Richard De Bodo; and [Proposed] Order]

DECLARATION OF ALEXANDER OSIPOV

I, Alexander Osipov, declare as follows:

1. I am the Chief Information Officer of Artec Europe S.A.R.L (“Artec” or “Artec 3D”).

I have worked at Artec since 2015. My responsibilities include, among other items, developing information security measures and standards for Artec’s products and technology, analyzing and protecting confidential information and intellectual property of the company, analyzing and mitigating external and internal information security risks, and conducting and managing investigations to minimize risk. As part of these responsibilities, I have gained a thorough understanding of Artec’s 3D scanner and recognition products and software, as well as its proprietary and confidential scanning, imaging, and recognition technology and research.

2. I provide this Declaration in support of Artec’s motion for a protective order. I have personal knowledge of the facts set forth in this Declaration and, if called as a witness, I could and would testify completely to such facts under oath.

3. Artec has long devoted and continues to devote significant resources to creating and developing innovative solutions, software, algorithms, and engineering products for scanning, imaging, computer vision, and recognition technology. Artec is recognized as a global leader in these fields, and it maintains and protects substantial portions of its technology as confidential trade secrets. Artec’s scanning, computer vision, and recognition technology includes a wide range of technologies and algorithms, including capturing two-dimensional (“2D”) and three-dimensional (“3D”) details of objects and, among other technologies, using structured light scanners, long-range Light Detection and Ranging (“LiDAR”) systems and scanners, Digital Light Processing (“DLP”) projector-based desktop scanners, photogrammetry (2D cameras), sophisticated sensors, and facial and other computer vision and recognition products.

4. I was informed that the Defendants requested to disclose Artec’s Confidential

information, “Restricted – Attorneys Eye Only” (“AEO”) information, and “Restricted Confidential Source Code” (“Confidential Source Code”) information under the Court’s Protective Order to Dr. Mohit Gupta (“Dr. Gupta”). I reviewed Dr Gupta’s CV and observed that Dr. Gupta is currently employed as (1) a Co-Founder and Scientific Advisor of Ubicept, Inc.; (2) a Research Scientist with Cruise LLC]; and (3) Director of the Wisconsin Computational Imaging and Vision Lab of the University of Wisconsin-Madison (“Vision Lab”), where Gupta works extensively on 2D and 3D imaging and vision projects and is also a named inventor on patents in the 3D reconstruction, imaging, computer vision, and recognition technology field.

5. Our review of the websites of these organizations and other publicly available information concerning them shows that these organizations are all competing to address many of the same technical challenges and problems that Artec has already successfully addressed in its work on scanning, computer vision, and recognition technology and that Artec will continue to address in the future. Because of this, Artec is concerned that disclosing Artec’s proprietary non-public technology and commercial information to Dr. Gupta, and through him potentially to these organizations, would pose significant information security and intellectual property risks and could lead Gupta to inadvertently use or disclose Artec’s proprietary information in a way that could harm Artec.

6. My review of Ubicept’s website (www.ubicept.com) shows that Ubicept is a commercial company and startup offering imaging and scanning solutions and techniques to customers, such as developing “next generation image sensors”, “imaging system consisting of electronics, computing, laser illumination, and imaging optics”, and “advanced computer vision algorithms” that would compete with Artec’s confidential technologies. More specifically, Ubicept’s technologies include:

- a. facial landmark recognition solutions that use similar techniques already used in

Artec's 3D face recognition portfolio. (see <https://www.ubicept.com/blog/capturing-facial-expressions-in-low-light>) Similar techniques are already used in Artec 3D face recognition portfolio (artecid.com). Facial Landmark Detection along with 3D Face Modeling, Alignment, Feature extraction are essential algorithms of 3D Face Recognition technology that Artec 3D have already commercialized in a form of biometric authentication solutions and software for its clients (<https://artecid.com/technology>).

- b. software with 2D postprocessing algorithms including 3D Reconstruction (<https://www.ubicept.com/kits>) where "3DReconstruct" is in the name of the "Automotive camera" animation. Similar algorithms are already part of the core of Artec Studio software (<https://www.artec3d.com/3d-software/artec-studio>) – including Artec 3D's advanced scanning, processing, and editing software. It allows our clients to create realistic 3D models using data from Artec 3D scanners, photos (2D images) & videos. As mentioned in detailed software description (<https://docs.artec-group.com/as/19/en/scan.html?highlight=reconstruction#ai-photogrammetry>) Artec 3D algorithms allow users to reconstruct 3D models from sets of photos and videos without a 3D scanner and a photogrammetry kit.
- c. hardware camera and computer vision solutions that are used for reconstruction of 3D models and scenes - mention on official video on 02:45 of <https://vimeo.com/785277737>. Artec Studio software also contains technology and algorithms for 3D models and scene reconstruction including neural engine-powered object reconstruction (<https://www.artec3d.com/3d-scanning-solutions/forensic> and <https://www.artec3d.com/3d-software/artec-studio/photogrammetry>).
- d. prototype imaging system consisting of electronics, computing, laser illumination,

and imaging optics – mentioned on Career page on official web-site <https://www.ubicept.com/careers>. Artec 3D scanners are high-tech imaging products utilizing same set of technologies, e.g. Artec Leo (<https://www.artec3d.com/portable-3d-scanners/artec-leo>) is all-in-one 3D scanning solution including light source VCSEL (laser wavelength: 808 nm), plus embedded processor (NVIDIA Jetson) as computing platform, plus electronics, plus imaging optics, plus other equipment, algorithms, software and inventions inside (<https://www.artec3d.com/portable-3d-scanners/artec-leo#tech-specs>). We also reviewed an article in which Ubicept “said it would use the money to recruit staff and to expand into 3D scanning and industrial automation” (www.eenewseurope.com/en/ubicept-raises-us8-million-for-spad-based-imaging) and already on Career page on official web-site <https://www.ubicept.com/careers> searching for candidates to build “imaging system consisting of electronics, computing, laser illumination, and imaging optics”. This will put Ubicept further into direct competition with Artec

7. We reviewed Cruise LLC’s website (www.getcruise.com) and other public information, and found that like Artec, Cruise works extensively with Light Detection and Ranging (LiDAR) technology and with advanced “sensor development.” In fact, during 2017, Cruise acquired a LiDAR company called Strobe and incorporated Strobe’s technology in its products. Cruise’s statements about it how it employs LiDAR technology as part of its self-driving car systems shows further potential overlap with Artec’s confidential proprietary technology, algorithms and systems, and demonstrate the risk that Gupta may inadvertently use and/or disclose Artec’s confidential information when he advises and/or provides services to Cruise. (See <https://medium.com/cruise/cruise-simulation-sensor-development-be57a5991fe6> [for example,

“LiDARs with different beam patterns and unique orientations to try different configuration layouts for better coverage.”]) Artec 3D has in its portfolio Artec Ray 3D scanners (<https://www.artec3d.com/portable-3d-scanners/laser-ray>). These use a professional LiDAR solution that produces 3D scans of the highest quality for many applications, including reverse engineering, inspection, creating true-to-life digital twins, documenting crime scenes, making change-over-time assessments of civil infrastructure etc.

8. Moreover, WisionLab, of which Gupta is the Director, performs research and develops patented technology in 3D imaging (<https://wisionlab.com/research/3d-imaging/>) and licenses and/or sells its technology to private companies that compete with Artec. Gupta himself admits that: “For me, the most encouraging thing is that a large fraction of [our patents] aren’t just gathering dust – they’ve actually been licensed for practical use by companies” - <https://www.cs.wisc.edu/2024/07/30/professor-mohit-gupta-sees-world-new-light/> WISIONLab has stated that the “goal of this work is to build an end-to-end system for structured light 3D scanning” and that “Our methods can be readily incorporated into existing scanning systems without a significant overhead in terms of capture time or hardware.” (wisionlab.com/project/structured-light-global-illumination/) As a result, it will be directly competing with Artec’s technology. Many Artec 3D scanners employ the structured-light method of 3D reconstruction. They are 3D imaging solution for capturing 3D frames using optical technology and other methods and algorithms (<https://docs.artec-group.com/as/19/en/scan.html>).

9. Further, Gupta has stated that “a large fraction” of WISIONLab’s patents have been “licensed for practical use by companies.” (<https://www.cs.wisc.edu/2024/07/30/professor-mohit-gupta-sees-world-new-light/>) These companies could become direct competitors to Artec.

10. In Dr. Gupta’s CV it is clearly stated that he received funding in the form of research grants from commercial companies (e.g. Cruise, Sony Corp. etc).

11. Dr. Gupta has obtained and/or is pursuing patents in several technical areas that would overlap with and/or compete with Artec's technology. These include U.S. Pat. Nos. 10,739,447 (directed to a system and method for estimating the depth of a scene emitting light from a light towards and receiving light back with an image sensor), 10,152,798 (directed to a system and method for three dimensional motion estimation using a light source to emit light toward a scene, an image sensor to capture defocused images of the scene), 10,645,367 (directed to a system and method for estimating the depth of a scene emitting light from a light towards and receiving light back with an image sensor), 10,818,023 (Systems, methods, and media for encoding structured light imaging patterns and estimating depths in a scene).

I hereby certify under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Executed on this 13th day of December, 2024, (20:15 EST, NY Time) in Biwer, Grand-Duchy of Luxembourg.

By: 
Alexander Osipov